ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): Oceanic and Atmospheric Research (OAR), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce

Funding Opportunity Title: Verification of the Origins of Rotation in Tornadoes Experiment (VORTEX) - Southeast

Announcement Type: Initial

Funding Opportunity Number: NOAA-OAR-OWAQ-2015-2004475

Catalog of Federal Domestic Assistance (CFDA) Number: 11.459, Weather and Air Quality Research

Dates: Complete application packages must be submitted through Grants.gov no later than 5:00 p.m. Eastern Time on June 12, 2015 except for the content defined in sections IV.B.(4) and IV.B.(5), which can be emailed no later than 5:00 pm Eastern Time on June 17, 2015.

Funding Opportunity Description: This research funding opportunity is being jointly issued by the OAR Office and Weather and Air Quality (OWAQ) and the National Severe Storms Laboratory (NSSL). It seeks to obtain new knowledge of the meteorological aspects of tornadoes in the southeastern U.S. and the sociological aspects of the public response to tornado forecasts and tornado events. This new knowledge will improve our ability to forecast and warn of tornadoes and elicit appropriate responses to mitigate damage, injuries, and loss of life.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

VORTEX-SE is a research program intended to improve tornado forecasts and warnings in the U.S., particularly the southeastern U.S., by obtaining new knowledge of atmospheric processes that are conducive to tornadoes. This new knowledge and, ultimately, improvements in the prediction of tornadic storms will be achieved through examination of historical data, application of state-of-art numerical weather prediction and data assimilation systems, and use of new data to be collected in a limited field observation program in February-April 2016. Further, VORTEX-SE will not only explore avenues to effectively communicate tornado forecasts to the public, but also evaluate aspects of public risk perception and response to these forecasts. In doing so, NOAA will be able to help the public more effectively mitigate damage, injuries, and loss of life from tornadoes.

When examining measures of the threat posed by tornadoes to life and limb, the southeastern U.S. has six of the eight most vulnerable states. Some of the vulnerability is attributed to a relatively large proportion of the population residing in mobile homes, which are known to be unsafe even in moderate strength tornadoes. Another above-normal risk in the Southeast is that many tornadoes occur during nighttime hours. These nighttime events are associated with over half the reported deaths and injuries. Further, tornado casualties are disproportionately in the late fall and winter months, which are not typically associated with tornadoes according to conventional understanding, and they often occur under conditions of marginal thermodynamic instability but very strong vertical wind shear. Hence, there are many issues in the continuum spanning meteorological understanding to public awareness and perception that must be addressed in order to reduce the high tornado vulnerability in the Southeast.

NSSL has generated a Project Overview document after canvassing a variety of experts in the research, operations, and media communities. This document, found at http://nssl.noaa.gov/temp/vortexsefunding/, should serve as both the primary tool for potential investigators to understand the issues that are of most concern, and the broad outline of how the Spring 2016 observing program will be conducted.

The Project Overview identifies a number of meteorological research topics that will

lead to new knowledge needed to improve forecasts and warnings of tornadoes in the southeastern U.S. These topics can be divided into two broad classes: 1) Mesoscale processes, including studies of the role of terrain in setting the stage for tornadic storms, and the role of air mass boundaries, gravity waves, fronts, etc.; and 2) Stormscale, including studies of updrafts, downdrafts, cold pools, and tornadogenesis in Quasi-linear Convective Systems (QLCS). The Project Overview also describes a set of research topics pertaining to the sociological aspects of warning communication and response.

Proposals to this program are restricted to the topics listed below in Sec. 1. These topics are described in more detail in the Project Overview, giving examples of testable hypotheses and instrumentation.

It is important for investigators to understand that NOAA will not provide funding for new instruments through this Federal Funding Opportunity Announcement due to timetable and resource restrictions. Further, often-used sources of observing instruments, such as the NSF's Lower Atmospheric Observing Facility (LAOF) likely cannot be made available, given the required processes for receiving and approving requests. Hence, proposals in response to this Federal Funding Opportunity Announcement must specify an ability to obtain needed observations either through existing investigator-owned instruments, or collaborations with others who have existing instruments, without the need to acquire new instruments.

Investigators who are funded to collect field observations through this Federal Funding Opportunity Announcement should understand that they will be expected to be present at the pre-selected observing area for 4-6 Intensive Observing Periods during March and April, 2016 (and perhaps in the last half of February if conditions warrant). Each Intensive Observing Period (IOP) will last approximately 2-4 days.

In addition, it should be understood that in the context of this initial VORTEX-SE funding, it is of greatest importance that NOAA gains an understanding of what we do not know. Investigators are cautioned not to propose work that requires multiple years of observations, analysis, and development. However, it is appropriate to propose obtaining observations that will contribute to determining the adequacy of an observing strategy and clarify the optimal strategies and instruments needed for future focused efforts.

1. Meteorological Studies

The following meteorological research topics have been identified as those most directly addressing known gaps in observing, understanding, and prediction of tornadoes in the Southeast. It should be noted that many of the Mesoscale Studies and the Stormscale Studies topics described in Secs. I.A.1.a and I.A.1.b are amenable to investigation using observational, numerical, and historical data analysis approaches, or combinations thereof. Investigators are encouraged to identify potential collaborations that span more than one approach. Further, studies are encouraged that employ Observation System Simulation Experiments (OSSE) and other methods to assess the quantitative value of new observations.

a. Mesoscale Topics

1. Characterization of wavelike reflectivity segments. In some scenarios, short reflectivity segments, moving perpendicular to the QLCS, have appeared to be associated with increasing low-level rotation and/or tornadoes when they interacted with the mature storms. The goals of this topic are to determine their structure and kinematics and what atmospheric processes are causing these weak precipitation bands, and the processes occurring when they interact with ongoing storms.

2. Terrain influences on the severe storms environment. Terrain features may play important roles in altering the local vertical wind profile, Convective Available Potential Energy (CAPE), Convective Inhibition (CIN), and other parameters thought to be important in forecasting tornado occurrence. The terrain features may also be associated with boundaries and other horizontal inhomogeneities. The goal of this topic is to ascertain how terrain features can create local conditions conducive to the initiation of severe storms, or change the tornado potential in existing storms.

3. Role of large boundary-layer vertical shear and moisture. The magnitude and mesoscale variations in low-level vertical shear and moisture, which are thought to play a dominant role in tornadic storms, is poorly observed and often poorly handled by existing forecast models. This topic seeks to clarify the role of the maintenance of stability in the

boundary layer (suppressing mixing, thus maintaining vertical shear) in the typical southeastern pre-storm regime featuring abundant cloudiness.

4. The role of boundaries. The relative importance of the forcing of boundaries by terrain and differential surface fluxes, and the role of thunderstorm outflows in initiating severe storms or modifying existing storms, is a topic of interest in VORTEX-SE.

5. Maintenance of tornado potential in the nocturnal boundary layer. It has been observed that the nocturnal boundary layer can remain favorable for tornado formation even though diagnosed and predicted CAPE values are near or at zero. This could be due to spatially unresolved concentrations of CAPE, or (more likely) inadequacies in measuring and predicting the stratification of the boundary layer. Related to this is the prediction of nocturnal boundary layer inhomogeneities responsible for storm initiation, maintenance and locally enhanced tornado potential.

6. Mid-tropospheric phenomena. This topic seeks to examine the importance of cold fronts aloft (CFA), the elevated mixed layer (EML), and other mid-tropospheric phenomena in modifying the environment and making it conducive to the formation of tornadic storms.

b. Stormscale Topics

1. Downdraft forcing. This topic seeks to increase understanding of microphysical processes (e.g. as inferred from dual-polarization radar data) in forcing downdrafts in southeastern U.S. storms and their role in tornadogenesis.

2. Horizontal vorticity streamers. Emerging research suggests that a vorticity source for supercell tornadoes may reside in near-ground “streamers” or “rivers” that emanate from the storm precipitation core. This topic seeks to clarify the importance of this phenomenon, and to characterize the vorticity vector distribution within these features.

3. QLCS tornadoes. Views vary widely on the genesis mechanisms for QLCS tornadoes. These events are especially problematic from the standpoint of warning quality. New knowledge of QLCS tornadogenesis paradigms is sought to improve anticipation and recognition of these tornadoes. Further, new knowledge is sought relating the signatures in radar data (e.g. velocity, Tornado Debris Signature) with the damage characteristics.

4. Updraft evolution. Recent studies are beginning to highlight the use of lightning (total, cloud to ground ratio, etc.) and satellite signatures to infer updraft intensity and severe weather potential. This topic will examine internal storm dynamics in order to improve the understanding of the connection between storm processes and the lightning and satellite signatures.

5. Land use. This topic addresses whether land use patterns and associated surface flux heterogeneities are associated with tornado formation and intensity.

6. Terrain role in tornado location and intensity. There is some evidence in historical tornado damage studies as well as idealized numerical simulations that terrain plays an important role in tornado motion, intensity, and perhaps formation and dissipation. The goal of this topic is to begin to augment the existing knowledge.

2. Sociological Studies

Several topics have been identified for further research in the area of communication of tornado forecasts and information to the public, and optimizing public response in order to mitigate damage, injuries, and fatalities. These include the following:

a. Lead time. The purpose of this topic is to evaluate how the public and the weather enterprise in the southeastern U.S. interpret lead-time. The NWS defines lead-time from the issuance of the warning, but it’s actually when the public and the weather enterprise receive the warning that actually initiates the lead-time.

b. False alarms. One of the unique aspects in the southeastern U.S. is the preponderance of more frequent, short-lived, low-end events, which often lead to high false alarm rates (FAR). The high FAR is associated with low lead-time and missed events. The objective of this research is to evaluate public perceptions of "false alarms" There is significant concern in the Southeast about too many false alarms and how this may desensitize the public. Changes in the tornado warning process making greater use of the warning polygon and more precise warning geography need to be evaluated.

c. Nocturnal events. This topic is to evaluate how the public understands nocturnal events and how they obtain and use nocturnal weather warnings. It is important to understand if the public generally understands the frequency of nocturnal tornadoes, how they plan to obtain warnings at night, and how they process that information in the absence of visual clues regarding the tornado threat.

d. Shelters. This topic is to evaluate shelter knowledge and shelter usage by the public. This investigation will include changes in perceptions regarding the need for stronger shelters in high-end events, changing patterns of shelter use, etc.

e. Sirens. This topic involves the evaluation of the use of sirens for tornado warnings. Even with warning polygons, many counties in the southeastern U.S. still warn the entire county with sirens. This research will explore the reliance on sirens at the county level, the public response to sirens, and how siren use contributes to the perception of false alarms.

f. Changes in communication and planning for high fatality events. This topic should evaluate how all emergency planners in the weather enterprise handle communication and planning for potentially high fatality events. This will include studying how the communication and planning process has been modified after previous high-fatality events, and whether overreaction to previous high-fatality events has led to desensitization and fatigue.

g. Complacency. This topic is to evaluate the potential complacency in risk communication, preparedness, and weather awareness that can develop with extended time periods between severe weather events.

B. Program Priorities

VORTEX-SE is a project that is being conducted with a one-year allocation of funds to NOAA. Because there is no certainty of additional funding beyond this year, the highest priority will be those objectives that can produce significant new knowledge through a single grant with no assumptions regarding follow-on support or special observations beyond those expected to be in service in the northern Alabama network by February 2016. For example, many of the historical topics are of the highest priority because they will provide baseline measures of the importance and prevalence of various phenomena, forming a basis for future research.

Also of high priority are objectives that have a reasonable likelihood of producing discoveries in the first year, but also can serve to refine observing strategies and define needed observations. Many of the mesoscale and social science topics fit this description.

Of lower priority are topics that, while deemed important to the overall Southeastern U.S. tornado problem, require multiple years of observation and analysis and/or additional special datasets (such as from NCAR/LAOF) to produce reliable new knowledge, and hence are largely foundational to future research efforts.

Further prioritization will involve the synergism between funded activities, and maximizing the amount of scientific findings in operations, given the funding constraints, that will lead to improved forecasts, warnings, and societal response. Thus, all investigators responding to this Federal Funding Opportunity Announcement are urged to consider the synergism between funded activities, and maximizing the amount of scientific findings in operations, given the funding constraints, that will lead to improved forecasts, warnings, and societal response.

C. Program Authority

15 U.S.C. 1540; 49 U.S.C. 44720(b)

II. Award Information

A. Funding Availability

The total estimate for one-time funding that will be available for projects is approximately $2,000,000, which will be used to fund 10-20 new projects. Funding of any proposals is contingent upon availability of these funds. In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs.

B. Project/Award Period

The period of awards is up to two years. All funded PIs are required to submit written semiannual reports during the project to describe the progress made toward the goals and deliverables established in the original proposal and agreed-upon timeline. A final report must also be submitted at the conclusion of the project. Note that two-year applications will be funded for both years when the award is created, if selected, with the use of the funding for a second year contingent upon a favorable review near the end of the first year.

C. Type of Funding Instrument

The funding instrument for selected projects will be a cooperative agreement based on the envisioned substantial involvement of NOAA scientists in projects funded by this notice. For selected projects involving investigators from multiple institutions, a separate cooperative agreement will be issued to each institution that submits a proposal. NOAA envisions that research projects and evaluation will involve close collaboration between researchers and NOAA scientists.

III. Eligibility Information

A. Eligible Applicants

Eligible applicants are institutions of higher education; other nonprofits; commercial organizations; foreign governments; organizations under the jurisdiction of foreign governments; international organizations; state, local and Indian tribal governments.

B. Cost Sharing or Matching Requirement

No cost sharing is required under this program.

C. Other Criteria that Affect Eligibility

N/A

IV. Application and Submission Information

A. Address to Request Application Package

Application packages for full proposals are available at: http://www.grants.gov/web/grants/applicants/apply-for-grants.html.

B. Content and Form of Application

(1) The application must include a title page that identifies each PI and the respective institutional representative by full name, title, organization, telephone number, mailing address, and e-mail address

(2) A one-page abstract must be included and must contain a brief summary of the proposed work to be completed. The abstract must appear on a separate page, headed with the proposal title and the name(s) of the PI(s) and their home institution(s)

(3) All proposals must provide a Statement of Work that includes:

(a) The proposed duration of the project, from one to two years;

(b) A proposed work plan for the project that includes: scientific hypotheses, methodology, project deliverables, and a timeline with key milestones;

(c) A timeline for conducting the research and delivering the scientific and technical results over the course of the project;

(d) A description for travel associated with data collection, project meetings, and the presentation of results at scientific conferences;

(e) All applicants must submit a budget, the Standard Form SF 424A, Budget Information-Non Construction Program, that is contained in the standard NOAA Grants and Cooperative Agreement Package, and a Budget Justification that includes the PIs scientific and technical support staff salaries and fringe benefits, facility requirements, computing and communications, supplies and travel. If indirect charges are included in the budget, applicant must have an approved negotiated Indirect Cost Rate Agreement. The information on the SF-424A should only include the amount of funding that will be provided to the institution submitting the proposal, not co-PI's at other institutions that will be submitting a separate proposal for their portion of the funding.

(4) An abbreviated Curriculum Vitae for PI(s) with a reference list of all publications within at least the last three years must be included.

(5) Current and pending Federal support: Each investigator must submit a list that includes project title, supporting agency, investigator months, total dollar value and duration.

C. Submission Dates and Times

Complete application packages must be submitted through Grants.gov no later than 5:00 p.m. Eastern Time on June 12, 2015, except for the content defined above in section IV.B.(4), and IV.B.(5), which must be submitted no later than 5:00 p.m. Eastern Time on June 17, 2015 (this latter content, if submitted separately after the June 12, 2015 deadline, must be submitted via e-mail directly to Richard.Fulton@noaa.gov by the June 17, 2015 deadline). The date and time receipt indication from Grants.gov will be the basis of determining timeliness. Applications received after that time will not be reviewed. Anticipated Award Start Date will be October 1, 2015.

D. Intergovernmental Review

Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs."

E. Funding Restrictions

NOAA will not pay or reimburse the award recipient for any individual item of equipment (as defined in 2 C.F.R. 200.33) regardless of the manner by which it is acquired or leased, the cost of which exceeds $5500. Given this, proposals in response to this Federal Funding Opportunity Announcement should specify an ability to obtain needed observations either through existing investigator-owned instruments, or collaborations with others who have existing instruments, without the need to acquire new costly instruments. Any request for equipment, therefore, will be scrutinized by reviewers.

F. Other Submission Requirements

Complete application packages should be submitted through the http://grants.gov website. If there are co-PIs from different institutions, the statement of work must describe the contributions by each PI and include a budget that clearly describes the exact amount being requested by each institution. The same proposal must be submitted separately by each institution, but the SF-424 forms should only list the amount being requested by the specific institution.

If the applicant is a university that has a NOAA Joint or Cooperative Institute (CI), the institution must submit a proposal that will be associated with the CI. The proposal must specify the name of the CI, its most recent award number, and the NOAA-approved research theme applicable to the work to be performed in the proposal's project narrative. The proposal will use the facilities and administrative rate (F&A or Indirect cost rate) associated with most recent CI award.

If the proposal is selected for funding, NOAA will notify the university where the CI resides that a separate competitive award will be issued with its own award number. However, the competitive award will include a Special Award Condition (SAC) that evidences the link between it and the CI award. The SAC would provide (1) that the university has submitted the proposal to be associated with the CI; (2) that any existing University/NOAA MOA will be incorporated by reference into the terms of the competitive award, and (3) that any progress report(s) for the competitive award must follow the timetable of and be submitted by the CI directly to the funding program. Copies of these progress reports will be attached to the CI's performance report as an appendix.

Application packages for full proposals must be submitted through www.grants.gov.

V. Application Review Information

A. Evaluation Criteria

At least three reviewers will evaluate each application on the following NOAA standardized evaluation criteria that are used for all competitive assistance announcements (listed with assigned weights). Applicants are required to adhere to all the noted submission requirements and address the criterion described in this section.

1. Importance/relevance and applicability of proposal to the program goals (30 points)?

This criterion ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, federal, regional, state, or local activities. The reviewers will consider the following questions in their assessment of this criterion:

How does the proposed activity enhance NOAA's strategic plan and mission goals?

Does the study address an important problem?

How will scientific knowledge be advanced?

Does this activity serve to identify gaps in current understanding and provide a foundation for future focused investigations?

Will this activity improve concepts or methods that drive the field of study?

Does the project employ novel concepts, approaches or methods?

Does the project expect to provide significant new knowledge through a single award with no assumptions regarding follow-on support?

2. Technical merit (35 points)

This criterion assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. The reviewers will consider the following questions in their assessment of this criterion:

Is the conceptual framework, design, methodology, and proposed analysis adequately developed, well-integrated, and appropriate for the goal of the project?

Is the scope of the proposal appropriate for a short-duration grant and limited new observations?

Does the applicant acknowledge potential problem areas and consider alternatives?

Does the proposal include metrics that evaluate the success or failure of the project?

Does the proposal include appropriate milestones for this project?

3. Overall qualifications of applicants (20 points)

This ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project. The reviewers will consider the following questions in their assessment of this criterion:

Does the environment in which the work will be done contribute to the probability of success?

Do the proposed activities take advantage of unique features of the intended environment or employ useful collaborative arrangements?

4. Project costs (10 points)

The project's budget is evaluated to determine if it is realistic and commensurate with the project needs and time-frame. The reviewers will consider the following questions in their assessment of this criterion:

Are the requested costs realistic, reasonable, allowable, allocable, necessary and commensurate with the project needs and time period?

Has the applicant proposed cost-efficient ways of accomplishing the project and collaborating with other project participants?

5. Outreach and education (5 points)

This assesses whether the project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. The reviewers will consider the following questions in their assessment of this criterion:

Does the proposal include a plan for sharing project progress and results with the general public through a web site?

Does the proposal include the publication of the results in a peer-reviewed publication and presenting results at a national conference or workshop?

B. Review and Selection Process

All full proposals will receive an independent, objective review in accordance with the criteria specified above in Section V.A. of this notice. Such review will be conducted by designated reviewers, consisting of at least three experts (which can be federal and/or non-federal). NOAA selects evaluators on the basis of their professional qualifications and expertise as related to the unique characteristics of the application. The members' scores will be used to produce a rank ordering of the projects by overall total scores. The NSSL Director will assess the evaluations and make a fund or do-not-fund recommendation to the OWAQ Director, who is the selecting official. Any application considered for funding may be required to address the issues raised in the evaluation of the application by the reviewers, program officer, selecting official, and/or grants officer before an award is issued. Successful and unsuccessful applicants will be notified of the final selection upon completion of the review and selection process. All applicants will receive their average scores regarding their application.

C. Selection Factors

The OWAQ director shall recommend awards in the rank order unless the applications are justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding

2. Balance/distribution of funds:

    a. Geographically

    b. By type of institutions

    c. By type of partners

    d. By research areas

    e. By project types

3. Whether this project duplicates other projects funded or considered for funding by NOAA or other federal agencies.

4. Program priorities and policy factors (see section I. B.).

5. Applicant's prior award performance.

6. Partnerships and/or Participation of targeted groups.

7. National Environmental Policy Act (NEPA) determination and draft of necessary documentation before recommendations for funding are made to the Grants Officer.

D. Anticipated Announcement and Award Dates

Final funding decisions are expected in September 2015. Projects should not be expected to begin prior to October 1, 2015.

VI. Award Administration Information

A. Award Notices

A. Award Notices

Successful applicants will receive notification that the application has been approved for funding by the NOAA Grants Management Division with the issuance of an award signed by a NOAA Grants Officer. This is the authorizing document that allows the project to begin.

Although successful applicants will receive notification that the application has been recommended for funding to the NOAA Grants Management Division, this notification is not an authorization to initiate the project. Official notification of funding, signed by a NOAA Grants Officer, is the authorizing document that allows the project to begin. Notifications will be issued by OWAQ to the Principal Investigator of the project. Unsuccessful applicants will be notified that their proposal was not selected for recommendation.

To enable the use of a universal identifier and to enhance the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act of 2006, to the extent applicable, any proposal awarded in response to this announcement will be required to use the Central Contractor Registration and Dun and Bradstreet Universal Numbering System and be subject to reporting requirements, as identified in OMB guidance published at 2 CFR Parts 25, 170 (2010) at: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title02/2cfr25_main_02.tpl and

http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title02/2cfr170_ma

in_02.tpl

B. Administrative and National Policy Requirements

The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of December 30, 2014 (79 FR 78390) are applicable to this solicitation and may be accessed online at http://www.gpo.gov/fdsys/pkg/FR-2014-12-30/pdf/2014-30297.pdf

Limitation of Liability. In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs. Publication of this announcement does not oblige NOAA to award any specific project.

National Environmental Policy Act (NEPA). NOAA must analyze the potential environmental impacts, as required by the NEPA, for applicant projects or proposals which are seeking NOAA federal funding opportunities. Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website:

http://www.nepa.noaa.gov/ , including our NOAA Administrative Order 216-6 for NEPA, http://www.nepa.noaa.gov/NAO216_6.pdf and the Council on Environmental Quality implementation regulations, http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=a46b9e8fc700febbc53c0ed334753fba&tpl=/ecfrbrowse/Title40/40cfr1501_main_02.tpl

Consequently, as part of an applicant's package, and under their description of their program activities, applicants are required to provide detailed information on the activities to be conducted, locations, sites, species and habitat to be affected, possible construction activities, and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals, introduction of non-indigenous species, impacts to endangered and threatened species, aquaculture projects, and impacts to coral reef systems). In addition to providing specific information that will serve as the basis for any required impact analyses, applicants may also be requested to assist NOAA in drafting of an environmental assessment, if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying feasible measures to reduce or avoid any identified

adverse environmental impacts of their proposal. The failure to do so shall be grounds for not selecting an application. In some cases if additional information is required after an application is selected, funds can be withheld by the Grants Officer under a special award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to make an assessment on any impacts that a project may have on the environment.

In accordance with current Federal appropriations law, NOAA will provide a successful corporate applicant a form to be completed by its authorized representatives certifying that the corporation has no Federally-assessed unpaid or delinquent tax liability or recent felony criminal convictions under any Federal law.

C. Reporting

The Federal Funding Accountability and Transparency Act of 2006 includes a requirement for awardees of applicable Federal grants to report information about first-tier sub-awards and executive compensation under Federal assistance awards issued in FY 2011 or later. All awardees of applicable grants and cooperative agreements are required to report to the Federal Sub-award Reporting System (FSRS) available at www.FSRS.gov on all sub-awards over $25,000.

Award recipients will be required to submit performance (technical) reports via NOAA's Grants Online system. All reports will be submitted on a semi-annual schedule and must be submitted no later than 30 days following the end of each 6-month period from the start date of the award. The comprehensive final report is due 90 days after the award expiration. Copies of all submitted reports will become the property of the U.S. Government.

VII. Agency Contacts

For questions about this announcement contact Dr. John Cortinas at John.Cortinas@noaa.gov.

VIII. Other Information

1. Please note that on December 26, 2013, OMB published final guidance entitled Uniform Administrative Requirements, Cost Principles, and Audit Requirements (OMB Uniform Guidance) (https://www.federalregister.gov/articles/2013/12/26/2013-30465/uniform-administrative-requirements-cost-principles-and-audit-requirements-for-federal-awards), which streamlined the language from eight existing OMB circulars, including Cost Principles (OMB Circulars A-21, A-87, A 122) and administrative requirements (OMB Circulars A-102 and A 110), into one consolidated set of guidance applicable to federal assistance awards. In accordance with the Federal Register notice published on December 19, 2014 (79 FR 75871) and the regulation at 2 C.F.R. § 1327.101, the DOC adopted such Guidance on December 26, 2014, which has been codified at 2 C.F.R. Part 200, making it applicable to all new awards and to additional funding to existing awards made after December 26, 2014. The audit requirements of the Guidance also apply to audits of non-Federal entities beginning on or after December 26, 2014. It is important to note that the OMB Uniform Guidance supersedes DOC's uniform administrative requirements set out at 15 C.F.R. parts 14 and 24. Given the foregoing, applicants should familiarize themselves with the OMB Uniform Guidance. Additional information on the substance of and transition to the OMB Uniform Guidance may be found at https://cfo.gov/cofar/.

2. Environmental data and information, collected and/or created under NOAA grants/cooperative agreements must be made visible, accessible, and independently understandable to general users, free of charge or at minimal cost, in a timely manner (typically no later than two (2) years after the data are collected or created), except where limited by law, regulation, policy or by security requirements.

a. Unless otherwise noted in this federal funding announcement, a Data/Information Sharing Plan of no more than two pages shall be required as part of the Project Narrative. A typical plan may include the types of environmental data and information to be created during the course of the project; the tentative date by which data will be shared; the standards to be used for data/metadata format and content; policies addressing data stewardship and preservation; procedures for providing access, data, and security; and prior experience in publishing such data. The Data/Information Sharing Plan will be reviewed as part of the NOAA Standard Evaluation Criteria, Item 1 -- Importance and/or Relevance and Applicability of Proposed Project to the Mission Goals.

b. The Data/Information Sharing Plan (and any subsequent revisions or updates) will

be made publicly available at time of award and, thereafter, will be posted with the published data.

c. Failing to share environmental data and information in accordance with the submitted Data/Information Sharing Plan may lead to disallowed costs and be considered by NOAA when making future award decisions.

3. Freedom of Information Act - U.S. Department of Commerce regulations implementing the Freedom of Information Act (FOIA) are found at 15 C.F.R. Part 4, "Public Information." These regulations set forth rules for the Department regarding making requested materials, information, and records publicly available under the FOIA. Applications submitted in response to this Federal Funding Opportunity may be subject to requests for release under the Act. In the event that an application contains information or data that the applicant deems to be confidential commercial information which is exempt from disclosure under FOIA, that information should be identified, bracketed, and marked as "Privileged, Confidential, Commercial or Financial Information." Based on these markings, the confidentiality of the contents of those pages will be protected to the extent permitted by law.